**A very happy Christmas to you all.**

Welcome to the December edition of the Notts & Derby Section's Newsletter.
In this issue we have news of the Christmas meal and the return of Relay Rally, items on the Triumph Sprung Hub and an unusual three-wheeler and a Christmas Picture Quiz!
There is also sad news about Ron Minton.

There are two articles from contributors: Ralph shares his memories of Ruddington Depot, prompted by last month's issue and Graham Foulger tells us of the trials and tribulations involved in the restoration of this year's concours winner.

## What's on in January.

4th. **Duke William Lunchtime meet.** Matlock
5th. Natter Night.
7th/8th. Winter Classic Show, Newark.
14th. Christmas Meal. 6.30pm Hogs Head.
15th Sunday Lunch Meet. Family Tree.
19th. Natter Night.
29th. Normous Newark.

## Next Year's Runs Calendar.

Graham has almost completed the calendar for next year's runs, club nights and events, with just a few dates to be finalized. Most runs and events are already uploaded to the VMCC Allen House website, so it is possible for you to check out any dates you wish. There could however be some changes before we finalise. The runs can be found at: https://www.vmcc.net/Section-Runs-Events once you are logged on. I will send an email with the calendar when finalised and the paper copy will be distributed before February

## Xmas meal, 14th Jan.

There will be a menu distributed in good time before the 14th January so that you can tell Graham and Sue your choices. This will enable the venue to cater for us.
Also please bring a raffle prize with you.

## Ron Minton.

Many of our members will have known Ron Minton. Sadly, I have to report that he passed away on Thursday, 24th November aged 97.
He was a member of the VMCC for many decades and in recent years, he and his wife Anne took on the role of "Tail End Charlie" in their Land Rover Discover on many of our runs.
He also went to the 1940s events at Crich as he was a Veteran involved in the Normandy landings with his regiment, whose job it was to advance to contact.
He was a very brave man and he will be missed by all those who knew him.

Ron Minton chatting to the riders before an evening run in 2019.

## Founder's Relay Rally 2023.

This will take place on **Sunday 30th April 2023.**
Newer members won't be familiar with the Relay Rally.
The format is simple: each participating section sets up and mans a check-point. All check-points will be listed online and in the Journal. Before the event, the Journal will contain a checking-in card. All members can then ride to as many or as few check-points as they wish and, on presenting their card, will receive a sticker to put onto it. The provides a record and a memory of the day's travels.
The pandemic prevented this event from taking place for three years and it was replaced last year

by the Waypoint Rally, which will still go ahead. Our checkpoint will be announced shortly and we will be asking for volunteers to man it for a few hours at a time.

**Triumph Tiger 80 GL 5807**

The winning bike at this year's Car Park Concours was this stunning Triumph. The owner, an old pal of mine, tells the story of how he obtained and restored it.


OBM dropped through my letter box on the morning of Saturday 7th February 2015 and as per usual I opened it and went straight to the "For Sale" section. My eyes immediately homed in on a particular advert: - For sale a 1938 Triumph Tiger 80, completely dismantled, £2000. I rang the number given in the advert and spoke to a gentleman called Bob who lived in Wolverhampton. Bob was 89, he had bought the Tiger in Bath back in the early 60's with a view to restoring it. He had started the restoration, by dismantling the motorcycle, but never finished it and at 89 years old he decided that he perhaps wouldn't manage to do so!

I drove over to Bob's house the following day to look at the Tiger and true to his word, the machine was totally dismantled, the only part intact was the bottom end. Having carried out a complete "nut and bolt" restoration of a Tiger 80 back in 2007 I was familiar with the machine and knew what I was looking for.

All the main parts were there, albeit in a poor state, but they were there. The main missing parts included the exhaust system and saddle but sourcing these two items would not be a problem. The other parts missing though were as rare as rocking horse poo, namely the rear light, a Lucas MT110, the instrument panel, the rare chromium plated panel with the sprung loaded pins for docking the Lucas DC40 brass inspection light. The Lucas DC40 brass inspection light, the Lucas light switch and the Lucas 8-0-8 ammeter. The Lucas D142F, 8-inch chrome headlamp, the Smiths Jaeger 80 mph speedometer and last but not least the Eureka 0 – 25 psi oil pressure gauge.

Obtaining these parts would involve a great deal of time and money spent at autojumbles and on eBay. Along with the Tiger came the original buff logbook; the engine and frame numbers of the machine corresponded to those stated in the logbook. Satisfied with the Tiger I paid Bob the asking price and transported all the parts home in my wife's Corsa.

The Tiger as it arrived home.

Back in 2007 I had visited the London, Coventry and National Motorcycle Museums, each had a Tiger 80 on display, and took numerous photographs for reference. I also purchased a BMS copy of the Parts Manual for the 1938 Tiger 80, this contained exploded diagrams of the machine which were invaluable during the restorations.

With the Tiger home I began the restoration. I took the girder forks to Pegasus Engineering to be re bushed, I already had a NOS set of Triumph girder fork spindles. After re bushing, the forks, frame and tin ware went to Calibre Customs to be wet sprayed gloss black. I decided against powder coating since although more durable than two pack it does not have the same gloss finish. The gearbox and bottom end were dismantled and the crank case halves, gearbox casing and primary chain cases went to be aqua blasted. The barrel, head and crank shaft went to SEP at Kegworth. The barrel had a new liner fitted taking the bore back to the standard 70mm and the head had new valve guides machined and fitted. When the head was returned, I installed NOS valves and NOS

valve springs. SEP fitted a NOS big end, little end and NOS con rod in the crank shaft.
The petrol tank was taken to Precision Motorcycle Paintwork to be restored. It needed some welding carried out around one of the threaded bosses used to secure the L H knee pad. The inside of the tank was chemically cleaned and lined. The tank was then sent to Marque Restore Chromium Platers in Coventry to be triple plated. The spraying of the tank panels and coach lining was then carried out back at Precision Motorcycle Paintwork.

Gear Box prior to assembly.

The mudguards were in a very poor state, rusty, dented with some sections looking like lace. I decided to save a great deal of trouble, time and pain and buy a set of new Tiger 80 pattern mudguards from ACE Classics, which were expensive but of excellent quality. After “dry fitting” they were also taken down to Precision Motorcycle Paintwork, along with new rims, to be sprayed and lined. The new rims were purchased from Central Wheels, who would later rebuild the wheels once the rims had been lined and hubs stripped and sprayed.
As for the rare parts, it was impossible to track down an original Lucas D142F chrome headlamp. I knew that E. T. Martin of Edmonton, London, produced high quality pattern headlamps for classic cars and motorcycles, including the Lucas D142F. These were made using the original method of “spinning” a disc of metal on a lathe type machine and forming the disc into a headlamp bowl by hand. I gave them a call only to find that the business had recently closed down due to the death of the owner. I subsequently discovered that ACE Classics had bought the remaining stock of six D142F chrome headlamps from E.T. Martin when they closed. I therefore purchased one of the last remaining D142F’s from ACE. The E.T. Martin headlamp was of excellent quality but the securing clip for the rim was not the same design as the original Lucas clip. This bugged me somewhat, but I decided that I would have to live with it.
Some months later I found one of my favourite sellers on eBay had a headlamp from a 1939 Triumph 5H for sale. Being a Nerd, I knew that the 5H headlamp was a D142F CPR (chrome plated rim) the bowl being painted instead of chromium plated. I therefore bid for the headlamp, making sure that I was the successful bidder! Once I had the headlamp, I stripped the black paint from the bowl and took the whole headlamp to Derby Platers to be chromium plated thus turning a D142F CPR into a D142F! There is though, a slight difference between the two in that the D142F had a brass bowl, for ease of chromium plating, whereas the D142F CPR had a steel bowl, but only anoraks like me would know that!


Lucas D142 version 2

An original Eureka 0 – 25 psi oil pressure gauge was also impossible to find but I knew that Draganfly Motorcycles, over in Bungay, sold a pattern Eureka gauge, of the same model, for use on an Ariel motorcycle. I bought one of these pattern gauges and found that they were identical to the original Eureka gauge apart from one important feature, the needle. Original Eureka gauges had a particular shaped needle that had an arrow point and a crescent at the “fletch” end of the needle. The pattern gauge just had a plain straight needle but help was at hand. I was in contact with another Triumph restorer who had a completely wrecked original Eureka gauge. It was beyond repair but it did have a perfectly good needle, so I swapped an old Tiger 70 carburettor for the wrecked gauge and rescued the “special needle”. The pattern gauge was made by a firm in Birmingham, so I got in touch with them and to cut a long story short they removed the modern needle and fitted my original Eureka needle onto the

pattern gauge. It now looks perfect, indistinguishable from an original Eureka gauge.
I managed to purchase the correct original sprung pin instrument chromed panel, brass DC40 inspection light and light switch from another contact. He had bought them as a set, a few weeks earlier from the auto jumble at Founders Day. Due to their rarity I had to pay a lot of money for them, and I subsequently had the instrument panel re chromed at Derby Platers.

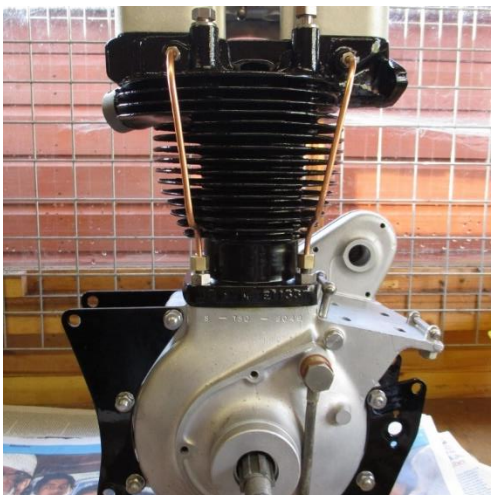

Restored instrument panel with the correct oil pressure gauge needle.

I sourced a saddle frame from Yeomans which I had recovered by R. K. Leighton in Birmingham.
The exhaust system was supplied by Armours and I managed to buy a correct period Lucas 8-0-8 ammeter at Stafford.
Over the next three years as parts eventually returned from paint sprayers, chromium platers, engineering shops, etc and missing parts were acquired, the restoration took place. Waiting for items to be returned from these various specialists is always the frustrating part. You can be waiting just a matter of days or on the other hand months for work to be carried out. As always, the restoration involved a great deal of blood, sweat and tears. There weren't many weeks pass by before another problem would rear its head but slowly and surely the problems were overcome and the restoration continued.
Gasket sets were no longer available so I had to make my own gaskets and rubber seals. For this work I bought a set of Imperial Wad Punches, Nitrile rubber sheets and various sheets of gasket paper.
I had to make virtually all of the control cables since they were no longer available for the Tiger, ditto the wiring harness.
All the original nuts, bolts and studs were unusable so I purchase new ones but machined out of stainless steel. I know the purists would frown at using stainless but to me it was a no brainer.
The special nuts and bolts, of which there were quite a few, I had machined by Graham at Pegasus Engineering.
I managed to reclaim the original registration number, from the DVLA, with the help of the TOMCC registrar.
One problem I never did manage to solve, until very recently, was the barrel / head joint. The Tigers did not use a head gasket, the head was lapped onto the barrel using fine grinding paste. Try as I might I never managed to be successful at this job and ended up fitting a copper head gasket. I had a few simple head gaskets laser cut from a sheet of .9 mm copper by a friend of a friend who worked for a Laser Cutting firm. I supplied the copper sheet and the dimensions (80mm outer diameter and 70mm inner diameter) and he cut me half a dozen gaskets in his lunch break, all for a tenner! I have however since managed to master this head lapping technique on my first Tiger 80 but for the time being GL 5807 will continue to run with a copper head gasket.
Once I had the engine running, another problem I experienced was lack of oil pressure. Since the Tiger engine does not have shell bearings the engine has a low pressure oil system. When fully warmed up they run at around 10 to 15 psi but this Tiger engine could not even manage that. I had fitted a new Morgo oil pump but the oil pressure was still virtually non-existent. I checked everything, I even tried re fitting the original old oil pump but still could not solve the problem. In desperation I rang Morgo and spoke to their "technical man", he said that I could return the new pump for checking but assured me that the new pump would be OK. We then began discussing the low-pressure problem and the Tiger's lubrication system. It was then that I realised that I hadn't fully understood how the system worked! He explained that the oil pump requires something to pump against to achieve pressure, in an engine with a roller big end, as opposed to a shell big end, the

pump does not have this. The Tiger overcomes this by having a pressure release valve in the main oil way between the pump and the Quill feed to the crank shaft. This valve consists of a sprung loaded ball bearing. The oil pump builds up pressure in the oil way and at a pre-set pressure, determined by the spring, the valve opens and allowing a spurt of oil down the quill, into the crank shaft, to the roller big end. The pressure in the main oil way then drops and the valve closes again until the oil pressure builds and the whole process is repeated. He suggested therefore that I check this pressure release valve. Now I had fitted a new 7/32 ball bearing and a new spring to this valve, these parts were still available under their original part numbers. I had fallen short though in two ways, firstly I had not tapped the new ball bearing into its aluminium seat to achieve a good seal. Secondly there is a special bolt that holds the spring in place against the ball bearing. I had incorrectly put a fibre washer under the bolt head before inserting it. This washer prevented the bolt being fully screwed home therefore reduced the spring pressure on the ball bearing. I checked in the parts manual and a fibre washer was not specified. Once the washer was removed and the ball bearing correctly seated, a good oil pressure was achieved.

Timing Cover Oil Release Plug

With these teething problems, and one or two others, finally sorted I could start to take her out for some shake down runs and carry out the inevitable adjustments to the machine.
She has now been on the road for some four years. She generally only comes out in the summer months; I take her for runs on local roads and country lanes in Derbyshire and Leicestershire. She rides very well; I have had no problems with her since completing the restoration. Although the Tiger 80's were supposed to have a top speed of 80 mph I very rarely take her over 45 mph, that's quite fast enough with brakes designed in 1938! She handles well but the main problem is the state of modern roads. Due to the Tiger's rigid rear end I tend to spend more time looking out for potholes than looking out for other road users. The action of girder forks is unusual until you are used to it but I became familiar with girders riding my first Tiger. Another disconcerting trait is that when riding around a tight bend at low speed the saddle tends to "sag" into the bend on the large saddle springs. This doesn't happen at higher speeds due to, I assume, centrifugal force holding the saddle in place. The lights aren't up to much but with a 6-volt system and a 30 watt output dynamo you can't expect brilliant lights. I very rarely venture out at night on her so that doesn't present a problem. She has the usual small oil leaks from around the push rod tubes and rocker shaft oil supply area; these engines were known for not being particularly oil tight. The problem is the quirky / bizarre Val Page design of the head, rocker box and push rod tubes.



Rocker Box Drains.

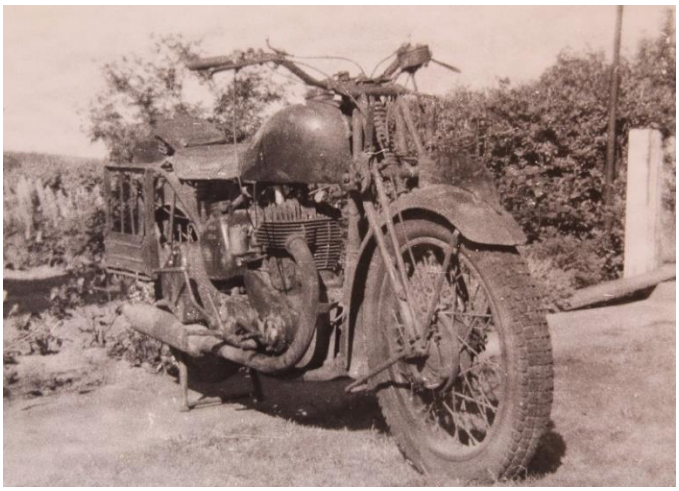
At the end of the day the Tiger turned out to be a delightful, good looking, classic motorcycle well worth the trouble and expense of the restoration.

**Graham Foulger.**

**Ruddington Auctions**

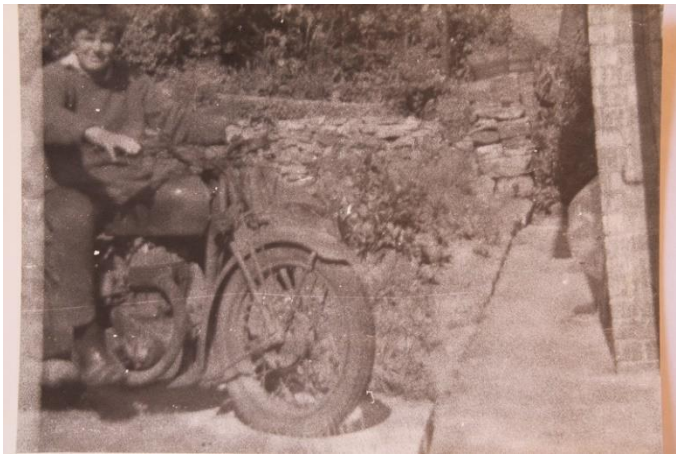
I was interested to read about Ruddington in last month's newsletter.
When I was about 13, I lived at Langley near Heanor. There was a lad in the village by the name of Mick Andrews (not the one who became quite good at trials riding - joke) but another one.
He had a BSA WM20 which he used to ride on Langley Pit Fields. Me and friends would go down there and he would take us for rides on it. We

would scour the countryside for empty bottles that used to have 3d deposit on them, collect them and use the money to buy petrol for the bike. Well, as you can imagine, I WANTED ONE!
Apparently, if the bikes hadn't sold they would just throw them in the back of lorries to clear the lot. (some say this sort of thing didn't happen, but there they were and I don't know why a haulage firm would buy 5 motorbikes).
Anyway, the father of a friend of mine worked for Heanor Haulage and took a motorbike home.
I swapped my Bantam and another bike (forgotten what) for his BSA WM20.


Ralph's first M20 around 1965-66.

I had acquired a 125 D1 Bantam for about £3 - as you did in those days - (nearly every back yard had a motorbike under a piece of lino or carpet).
In about 1965/6 my brother wanted a mini car to go to university in. My parents had seen where an auction at Ruddington sold off cars that had been adapted for ex-servicemen who had been disabled. We went down and looked around and saw 1 or 2 which would be suitable.
We went down later to the auction.
I had seen loads of motorbikes there for sale and pestered my parents to buy me one, but they said no because they were about £30. So, I didn't get one.
Sometime later when Heanor Haulage took over the disused Langley Pit they bought a lorry from Ruddington and when they got it back to the yard, lo and behold, there were 5 motorbikes in the back!!
Apparently, if the bikes hadn't sold, they would just throw them in the back of lorries to clear the lot. (some people say this sort of thing didn't happen, but there they were and I don't know why a haulage firm would buy 5 motorbikes).
Anyway, the father of a friend of mine worked for Heanor Haulage and took a motorbike home.
I swapped my Bantam and another bike (forgotten what) for his BSA WM20.

It only needed some fuel in it and away it went.
My parents had a smallholding at the time and I would hurtle around the land for hours on end, and for a 14 year old, this was brilliant.
I used to take things off it and put them back on, as you do when you are young, and I guess this is what got me interested in all things mechanical, which has lasted all my life.


A youthful Ralph on his steed. Not changed a bit!

I later sold the BSA WM20 for about £10 and it was only some time after that I discovered that the £30 at the auction was for 5 bikes! Not one.
It took a long time but I now own a BSA WM20 which I really like riding and it's the one bike which I would not sell, but if I did, it would have to be for at least £17/9/11d.

Ralph's current M20, on the Old and Slow Run last year.
I wonder if anyone else started their passion for motorbikes in this way?

**Ralph Taylor**

**Avon Tyres.**

The Avon Tyres plant, in Melksham, Wiltshire, will close its factory next year. It's the last remaining motorcycle tyre factory in the UK. Production began in 1904, and by the 1950s and '60s, it produced 1.5 million car and motorcycle tyres per year.
But the company's profits, which were £4.3 million in 1993, fell to just £6873 in 2020. The factory is to close at the end of 2023.

**The Triumph Spring Wheel Suspension System.**

On a recent visit to the National Motorcycle Museum, I spotted this cutaway display version of Triumph Sprung Hub Thunderbird. Coincidently, at about the same time, I spotted a photo on the internet of a cutaway hub that someone pulled from a skip in the USA. Neither image gives a good insight as to how it worked but I have found some drawings which help.
Although Sprung Hub machines have a certain cachet now, the system was not held in such good esteem when it was available.

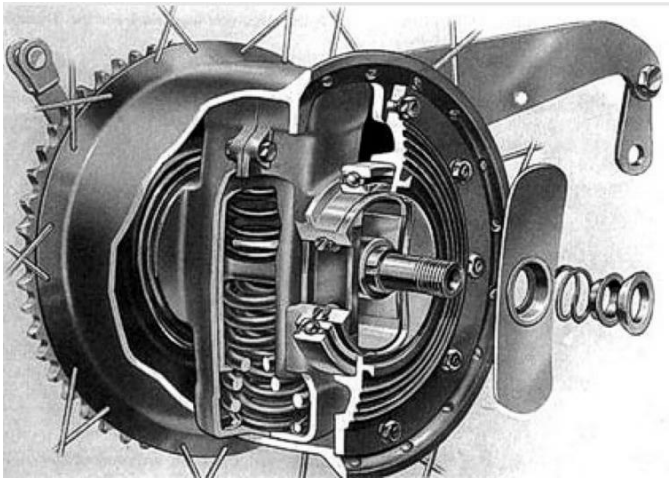
The display model at the NMM.

Edward Turner designed it with two things in mind; cost and minimum added weight. He also wanted to keep the unspoilt lines of the bike. He dismissed the plunger system which appeared in the late 1930s and also ignored the relatively new swinging arm design, which Velocette fitted to racing machines in 1936.
His system used springs inside the hub itself, which allowed it to be fitted to existing frames, requiring no expensive changes to the frame.
Plunger suspension was common at this time, with springs above and below the rear axle, mounted in extensions of the rear frame either side of the wheel, to control movement both up and down. It could be quite sophisticated, with springing and damping in both compression and rebound.

This was pulled from the skip at TRICOR in Baltimore. A lucky find for somebody! The spokes had been chrome plated for display.

However, plunger systems had their problems: wheel travel was limited, the wheel could move out of the vertical axis and it was expensive to produce and difficult to maintain.

Turner's design only gave 2 inches of movement, the given reason being that he believed the quality of the springing was more important than the distance of travel, but it could have been due to the limited space in the hub itself.



A stock image which gives some idea of the mechanism.

Essentially, the spindle remains stationary, bolted into position as it usually would be when fitted into a rigid frame. The wheel and hub move on a curved path taken from the centre of the gearbox sprocket to ensure constant chain tension. Movement is controlled by springs, two below and one above each end of the spindle.

It's said that Turner got his inspiration from a similar system, designed by Dowty Engineering, which was used in the fixed undercarriage of the Gloucester Gladiator aircraft of the time.
One advantage of the hub, which added about 7kg, was that it could be fitted into an earlier rigid-framed Triumph with no modifications to the frame.

A close-up image of the Gloucester Gladiator undercarriage. It can be seen that the wheel moves vertically on the stub axle.

However, the handling was, apparently, potentially dangerous and any attempt to dismantle the hub for servicing without the correct tools could be lethal. In fact, there was a warning actually cast into the housing!
Once the swinging arm was introduced on the ground-breaking Norton Featherbed frame, this became the industry standard and Triumph had to respond with their own version.
All of the new swinging arm models required units to control springing and damping, and Girling became one of the leading manufacturers of suspension units.
It is ironic, however, that the Velocette version introduced in the thirties was inspired by similar units fitted to aircraft. These units were also manufactured by Dowty, the makers of the system which gave Turner his idea for the Sprung Hub.


A period advertisement

**Three Wheels on my Wagon.**

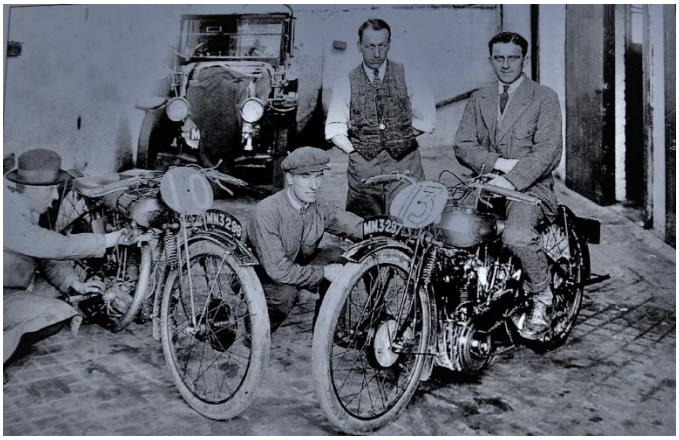
This contraption is a 1925 Seal 980cc Family Motorcycle. Produced by Seal Motors Ltd. in Hulme, Manchester, SEAL stood for Sociable Economical and Light. The company described it as having “The comforts of a car at the cost of a motorcycle combination.”

The designers made the sidecar the main focus. The motorcycle itself didn’t even have a seat; it was just used for power—and to provide two of the vehicle’s three wheels. Plus, the detachable sheet-steel fairing kept the engine and gearbox free of dirt.

Early models had tiller steering and were powered by a 770cc JAP V-twin engine with belt drive and Sturmey Archer hub gear. This later model had a steering wheel and a 980cc JAP engine, three-speed countershaft gearbox, and chain final drive. Seal made two-, three- and four-seat versions; this four-seater can accommodate two adults and two small children.
Sadly, the machine didn't sell well and although there is no record of how many were built, this is one of only two still known to survive. It was sold by Bonhams in 2021 for £23,000 including premium.

**Manx Nostalgia.**

A lovely period photo from the 1920s, featuring the machines of "Miley" Sheard, who was a cousin of the Manxman Tom Sheard, winner of two TT Races.
At this time, the bikes raced around The Mountain Course had to be road registered to comply with regulations.



The Junior of 1922 was his first victory, adding the Senior of 1923 for good measure. Both these machines failed to finish in 1925 for "Miley"

TT visitors will recall seeing the winning Senior Douglas machine on display for years in the window of a garage in Victoria Road which was run by Tom Sheard, later the garage for Mc Mullins Coaches and better known of late being Padgetts or kitchen Showrooms.

**Ready for Winter.**


With the Christmas season upon us, it might be time to think about getting a Cycle Sno-Go! As the advert says, it's terrific for getting to your cabin. Fits most lightweights from 50cc and consists of tractors that replace the back wheel and skis that slip on the front. Up to 20mph on the Tiger Cub.

## Christmas Quiz.

These photos are all of people who have famously ridden motorcycles.
All you have to do is name them.
Although Q. 4 looks much like our own Graham Franks, it is actually someone even more famous.
Answers next month.

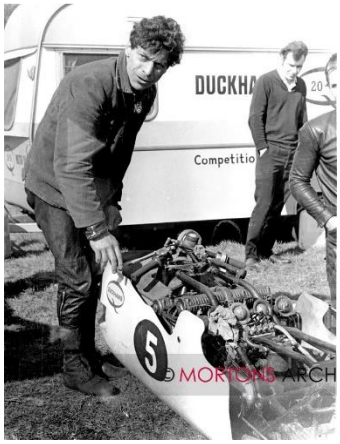
(Last month's mystery lady rider was Honor Blackman. Mike Hornsby was the first to give me

the correct answer, followed quickly by Tony Ainley.)

Q. 1

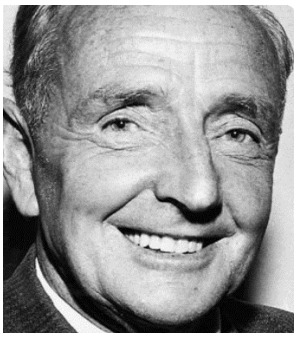

Q. 2 Name both.

Q. 3

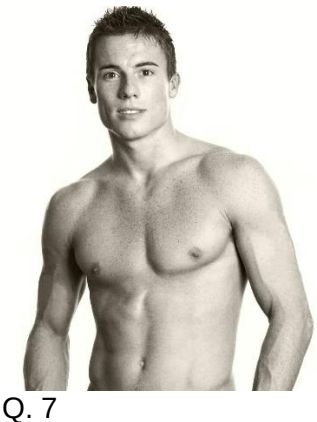



Q.4

Q.5



Q. 6

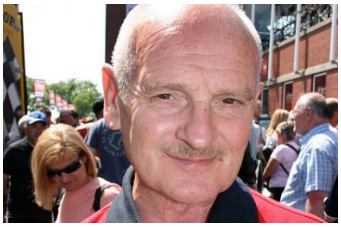


Q. 7


Q. 8

Q. 9

Q. 10



Q.11

Q. 12

**Free Advertisements.**

**FOR SALE:**

**1962 Triumph TR6SS Pre-unit**


I have owned this bike for over 25 years. This is a very reluctant sale as I head to my octagon years, sadly, It is becoming too big and heavy for me now and my longer owned 1960 BSA C15 becomes my preferred riding choice.
I am looking for offers around £9,000.
I will of course provide more photographs and history details.
Please contact: hornsby_jm@yahoo.co.uk

**1982 Honda 400 Superdream**



Recent new tyres, new fork seals fitted.
Front brake lines renewed. New front pads fitted
New rear brake shoes fitted.
New cush drive rubbers fitted.
Oxford heated grips fitted.
Cannot guarantee mileage shown although the bike and been off road for 15 years it would seem that the mileage is something like correct.
£1250.

Contact Derek, 01623 552480 or 67dcrookes@gmail.com



**CONTACT US:**
**Please** let me have any stories from the past, amusing or otherwise, concerning motorcycles, or any technical information, rebuild stories, photos or news of events by replying to this email.
Let us know what you've been up to by emailing me at: nottsandderbyvintageclub@outlook.com

Use the same address and format if you have any items or motorcycles for sale. Don't forget to include a phone number and a price.